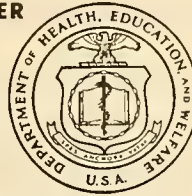


# Morbidity and Mortality



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WEEKLY  
REPORTWeek Ending  
March 16, 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

## EPIDEMIOLOGIC NOTES AND REPORTS

## MALARIA OUTBREAK - Ceylon

Since early 1967, Ceylon (1966 estimated population 11,784,000) has experienced progressively higher numbers of malaria cases each month. In late 1967, the outbreak reached epidemic proportions.

Prior to 1967, the efforts to eradicate malaria from Ceylon had been among the most productive of the national programs that collectively make up the worldwide malaria eradication program. A long history of endemic and severe epidemic malaria led to control efforts beginning in 1911. These efforts were periodically enlarged especially after the 1934-35 epidemic which afflicted 1.5 million people and caused perhaps 80,000 deaths. A comprehensive pro-

## International Notes

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gram for the national control of malaria was launched in 1945. This control program and the subsequent Anti-Malaria Campaign (AMC) were successful in controlling malaria and in nearly achieving eradication during the years of widespread DDT spraying, up to 1963. In April 1963, however, DDT coverage was withdrawn except for half-mile

(Continued on page 94)

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
(Totals include revised and delayed reports)

DISEASE	11th WEEK ENDED		MEDIAN 1963 - 1967	CUMULATIVE, FIRST 11 WEEKS		
	March 16, 1968	MARCH 18, 1967		1968	1967	MEDIAN 1963 - 1967
Aseptic meningitis .....	33	40	34	298	307	307
Brucellosis .....	2	4	6	12	40	47
Diphtheria .....	—	—	4	29	28	42
Encephalitis, primary:						
Arthropod-borne & unspecified .....	11	22	---	158	238	---
Encephalitis, post-infectious .....	8	25	---	92	131	---
Hepatitis, serum .....	81	36	859	744	397	9,045
Hepatitis, infectious .....	863	822		9,022	8,648	
Malaria .....	26	47	2	491	434	23
Measles (rubeola) .....	688	2,834	11,535	6,245	24,507	94,594
Meningococcal infections, total .....	85	60	80	920	662	667
Civilian .....	78	59	---	841	614	---
Military .....	7	1	---	79	48	---
Mumps .....	5,666	---	---	55,618	---	---
Poliomyelitis, total .....	2	1	3	11	3	5
Paralytic .....	2	1	3	11	3	4
Rubella (German measles) .....	2,376	1,531	---	10,550	10,586	---
Streptococcal sore throat & scarlet fever .....	12,010	13,302	13,302	126,750	134,347	122,627
Tetanus .....	2	4	2	22	33	37
Tularemia .....	1	2	3	16	25	47
Typhoid fever .....	4	1	2	42	56	63
Typhus, tick-borne (Rky. Mt. spotted fever) .....	—	—	—	3	8	6
Rabies in animals .....	54	84	93	768	863	823

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax: .....	1	Rabies in man: .....	—
Botulism: .....	—	Rubella, Congenital Syndrome: .....	3
Leptospirosis: .....	3	Trichinosis: .....	6
Plague: .....	—	Typhus, murine:*	2
Psittacosis: Tenn.-1 .....	7		

\*Delayed Reports: Texas 2 cases 1967

## MALARIA — (Continued from front page)

barriers around jungle areas; even this partial coverage was discontinued in April 1964.

Malaria surveillance activities have been extensive with Annual Blood Examination Rates of up to 15 percent. The reduced incidence of malaria is evident in the number of malaria cases detected annually from 1958 through 1966 (Table 1). The effectiveness of attack measures on *Plasmodium vivax*, especially, is evident in the classification of cases caused by this parasite (Table 2). The 1965 case of indigenous *P. vivax* malaria, the first in Ceylon in 35 months, was intensively investigated, but no additional cases were found. In January 1966, two more cases were found in a village 20 miles away from the original case; later that year, four additional cases were found.

Table 1  
Confirmed Cases of Malaria in Ceylon, 1958-1966

Year	Slides Examined	Cases				Total
		<i>P. vivax</i>	<i>P. falciparum</i>	<i>P. malariae</i>	Mixed Infections	
1958	63,886	781	251	3	2	1,037
1959	305,740	1,126	456	8	6	1,596
1960	596,033	376	39	7	—	422
1961	786,307	76	13	20	1	110
1962	1,028,622	14	16	1	—	31
1963	949,919	8	5	4	—	17
1964	1,213,133	13	63	73	1	150
1965	1,247,808	19	189	100	—	308
1966	1,455,259	27	161	310	1	499

Table 2  
Classification of *Plasmodium vivax* Malaria Cases, 1962-1966

Year	Indigenous Cases	Imported Cases	Total Cases
1962	10	4	14
1963	0	8	8
1964	0	13	13
1965	1	18	19
1966	6	21	27

In 1967 additional cases of *P. vivax* malaria were reported in the same central region of the country, and in October, *P. vivax* malaria was present in a gem mining area which attracted many transient gem miners. In spite of efforts to control the disease and to restrict population movements in and out of the gem mining area, *P. vivax* infections continued to increase in 1967 and also to spread extensively to other parts of Ceylon. Quarterly case counts

for 1967 (Table 3) demonstrate the increased incidence of *P. vivax* malaria. All but nine of these 3,026 *P. vivax* infections were indigenous.

Table 3  
Confirmed Cases of Malaria 1967\*

Quarter	<i>P. vivax</i>	<i>P. falciparum</i>	<i>P. malariae</i>	Mixed Infections	Total Cases
First	26	17	168	—	211
Second	93	73	37	—	203
Third	689	76	35	1	801
Fourth	2,218	25	8	—	2,251
Total	3,026	191	248	1	3,466

\*A total of 1,153,954 slides were examined in 1967.

In the first 2 months of 1968, the malaria incidence continued to rise (Table 4). Although the number of *P. falciparum* cases is still small, the focal outbreak of this disease in January and February is now potentially very dangerous because the AMC is already severely stressed by their efforts to control the *P. vivax* malaria epidemic. As in most epidemic situations the actual number of cases far exceeds the number of diagnostically confirmed cases. A feature of this epidemic has been the low mortality. So far only two deaths have been reported. This seems to indicate that action has been prompt and effective. Surveillance activities continue at a high level and the Central Laboratory in Colombo—which is in the non-malaria, unaffected area of Ceylon—has been enlarged, and two regional laboratories have been opened. In 1968, 24 spraying units were added to the 18 units in operation at the end of 1967. In addition, the AMC has prepared plans for spraying residual insecticide to all houses in the malarial areas. With the end of the peak transmission season (in much of the affected area) in March, the incidence of malaria may soon be reduced. However, it is fully recognized that substantial long term efforts will be required to regain control of malaria in Ceylon.

Table 4  
Confirmed Cases of Malaria  
January and February 1968

Month	Slides Examined	<i>P. vivax</i>	<i>P. falciparum</i>	<i>P. malariae</i>	Total Cases
January	169,132	16,851	88	4	16,943
February	189,105	42,056	104	1	42,161

(Report prepared with the assistance of the Department of Health Services, Colombo, Ceylon, and by two Malaria Eradication Program Epidemiologists, ACDC.)

#### CURRENT TRENDS TUBERCULOSIS BEDS IN HOSPITALS AND SANATORIA, 1967

A biennial survey\* of the major hospital resources available in the United States for the care of tuberculosis

\*Tuberculosis beds in hospitals and sanatoria, June 30, 1967, NCDC, Tuberculosis Program.

patients shows that on June 30, 1967, there were 43,069 beds assigned for tuberculosis in 348 hospitals (Table 5). On that day 30,028 of these beds were occupied. Included in the survey were 267 non-federal hospitals and

81 federal facilities with tuberculosis patients, and six non-federal hospitals in Puerto Rico and the Virgin Islands.

**Table 5**  
**Hospital Facilities for the Care of Tuberculosis**  
**United States, June 30, 1967**

Area	Number of Hospitals	Number of TB Beds	
		Rated Capacity	Beds Occupied
Total United States	348	43,069	30,028
Non-Federal <sup>1</sup>	267	37,208	25,172
Federal	81	5,861	4,856
Puerto Rico and the Virgin Islands	6	1,867	1,278

<sup>1</sup>With 10 or more tuberculosis beds.

Only non-federal hospitals with a complement of 10 or more tuberculosis beds were included in the sur-

vey. Federal hospitals in the survey represent all available tuberculosis beds reported by the United States Public Health Service, Division of Indian Health, Department of the Air Force, Department of the Army, Department of the Navy, and the Veterans Administration.

In the past 4 years, there has been a reduction of 47 non-federal and 14 federal hospitals providing care for tuberculosis patients. Some of the hospitals that discontinued services for tuberculosis patients were closed in their entirety; others converted their facilities to chronic, mental, other chest diseases, and treatment of alcoholics.

Use of tuberculosis hospital beds has declined steadily since 1948. Utilization of tuberculosis beds in non-federal hospitals was 71 percent in 1967.

(Reported by Statistical Services Unit, Tuberculosis Program, NCDC.)

## SUMMARY OF REPORTED CASES OF INFECTIOUS SYPHILIS

CASES OF PRIMARY AND SECONDARY SYPHILIS: BY REPORTING AREAS FEBRUARY 1968 AND FEBRUARY 1967 - PROVISIONAL DATA

Reporting Area	February		Cumulative January-February		Reporting Area	February		Cumulative January-February	
	1968	1967	1968	1967		1968	1967	1968	1967
NEW ENGLAND.....	42	36	65	69	EAST SOUTH CENTRAL.....	111	163	223	322
Maine.....	-	-	-	-	Kentucky.....	8	7	21	16
New Hampshire.....	-	2	-	3	Tennessee.....	29	18	51	42
Vermont.....	-	-	-	2	Alabama.....	48	89	99	192
Massachusetts.....	34	21	48	40	Mississippi.....	26	49	52	72
Rhode Island.....	4	2	4	4	WEST SOUTH CENTRAL.....	280	244	548	505
Connecticut.....	4	11	13	20	Arkansas.....	11	11	21	22
MIDDLE ATLANTIC.....	267	243	536	569	Louisiana.....	62	55	124	97
Upstate New York.....	11	16	26	38	Oklahoma.....	8	8	14	24
New York City.....	175	147	337	328	Texas.....	199	170	389	362
Pa. (Excl. Phila.).....	24	14	46	54	MOUNTAIN.....	53	46	88	103
Philadelphia.....	28	24	55	44	Montana.....	-	1	1	1
New Jersey.....	29	42	72	105	Idaho.....	2	4	2	7
EAST NORTH CENTRAL.....	276	218	544	464	Wyoming.....	-	-	-	-
Ohio.....	57	49	90	99	Colorado.....	10	2	11	12
Indiana.....	27	7	46	12	New Mexico.....	11	15	21	32
Downstate Illinois.....	15	10	35	22	Arizona.....	26	24	46	51
Chicago.....	89	58	191	134	Utah.....	-	-	-	-
Michigan.....	86	93	180	192	Nevada.....	4	-	7	-
Wisconsin.....	2	1	2	5	PACIFIC.....	133	142	247	297
WEST NORTH CENTRAL.....	29	17	44	43	Washington.....	2	7	6	11
Minnesota.....	6	5	6	7	Oregon.....	5	3	6	7
Iowa.....	2	1	2	4	California.....	125	131	233	275
Missouri.....	16	6	23	14	Alaska.....	-	-	-	1
North Dakota.....	-	-	-	-	Hawaii.....	1	1	2	3
South Dakota.....	3	2	4	7	U. S. TOTAL.....	1,627	1,622	3,183	3,390
Nebraska.....	2	3	8	6	TERRITORIES.....	82	72	149	122
Kansas.....	-	-	1	5	Puerto Rico.....	73	69	132	117
SOUTH ATLANTIC.....	436	513	888	1,018	Virgin Islands.....	9	3	17	5
Delaware.....	5	4	5	8	Note: Cumulative Totals include revised and delayed reports through previous months.				
Maryland.....	42	47	89	113					
District of Columbia.....	49	56	128	103					
Virginia.....	17	27	33	51					
West Virginia.....	8	-	8	2					
North Carolina.....	65	63	117	130					
South Carolina.....	49	67	97	142					
Georgia.....	62	83	133	169					
Florida.....	139	166	278	300					

## CURRENT TRENDS MEASLES

A total of 672 cases of measles was reported to NCDC for the week ending March 16, 1968. This is 24 percent of the cases reported for the comparable week in 1967. To date, a total of 6,245 cases has been reported

for the first 11 weeks of 1968; this is 25 percent, 8.3 percent, and 6.6 percent of the cases reported for the corresponding periods in the years 1967, 1966, and 1965, respectively.

(Continued on page 100)



## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED  
MARCH 16, 1968 AND MARCH 18, 1967 (11th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA
					Primary including unsp. cases		Post- Infectious	Serum	Infectious		
	1968	1967			1968	1968	1967	1968	1968	1968	
UNITED STATES...	33	40	2	-	11	22	8	81	863	822	26
NEW ENGLAND.....	-	-	-	-	2	1	1	5	38	33	1
Maine.....	-	-	-	-	-	-	-	-	-	3	-
New Hampshire.....	-	-	-	-	-	-	-	-	1	1	-
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	-	-	-	-	-	-	1	1	19	9	-
Rhode Island.....	-	-	-	-	1	1	-	-	7	9	1
Connecticut.....	-	-	-	-	1	-	-	4	11	11	-
MIDDLE ATLANTIC.....	2	4	-	-	4	3	-	19	125	134	8
New York City.....	-	2	-	-	3	2	-	14	32	45	-
New York, up-State.....	*-	1	-	-	-	1	-	2	*21	31	1
New Jersey.....	2	-	-	-	-	-	-	3	*28	22	5
Pennsylvania.....	-	1	-	-	1	-	-	-	44	36	2
EAST NORTH CENTRAL...	6	2	-	-	2	7	-	2	159	160	-
Ohio.....	1	1	-	-	2	6	-	-	42	43	-
Indiana.....	1	-	-	-	-	-	-	-	15	10	-
Illinois.....	2	1	-	-	-	-	-	-	55	52	-
Michigan.....	2	-	-	-	-	1	-	2	29	36	-
Wisconsin.....	-	-	-	-	-	-	-	-	18	19	-
WEST NORTH CENTRAL...	-	-	1	-	-	3	1	3	46	85	3
Minnesota.....	-	-	-	-	-	-	1	3	16	6	2
Iowa.....	-	-	-	-	-	-	-	-	7	16	1
Missouri.....	-	-	1	-	-	3	-	-	20	52	-
North Dakota.....	-	-	-	-	-	-	-	-	-	-	-
South Dakota.....	-	-	-	-	-	-	-	-	-	-	-
Nebraska.....	-	-	-	-	-	-	-	-	-	4	-
Kansas.....	-	-	-	-	-	-	-	-	3	7	-
SOUTH ATLANTIC.....	7	9	-	-	-	3	1	2	68	103	6
Delaware.....	1	1	-	-	-	-	-	-	5	-	-
Maryland.....	1	1	-	-	-	1	-	1	13	25	-
Dist. of Columbia..	-	-	-	-	-	-	-	-	2	-	-
Virginia.....	-	1	-	-	-	1	-	-	14	17	-
West Virginia.....	-	3	-	-	-	-	-	-	6	13	-
North Carolina.....	-	1	-	-	-	-	-	1	10	10	4
South Carolina.....	1	-	-	-	-	-	-	-	-	3	-
Georgia.....	-	-	-	-	-	-	-	-	8	20	2
Florida.....	4	2	-	-	-	1	-	-	10	15	-
EAST SOUTH CENTRAL...	12	5	-	-	-	1	-	1	68	35	-
Kentucky.....	-	-	-	-	-	-	-	-	36	11	-
Tennessee.....	3	1	-	-	-	-	-	1	23	11	-
Alabama.....	6	4	-	-	-	-	-	-	4	6	-
Mississippi.....	3	-	-	-	-	1	-	-	5	7	-
WEST SOUTH CENTRAL...	2	4	-	-	-	2	1	1	64	74	1
Arkansas.....	-	-	-	-	-	-	-	-	-	3	-
Louisiana.....	1	2	-	-	-	1	-	1	17	17	1
Oklahoma.....	-	1	-	-	-	1	-	-	*16	5	-
Texas.....	1	1	*-	-	-	-	1	-	31	49	-
MOUNTAIN.....	-	-	-	-	-	-	1	1	48	34	3
Montana.....	-	-	-	-	-	-	-	-	2	3	-
Idaho.....	-	-	-	-	-	-	-	-	1	7	-
Wyoming.....	-	-	-	-	-	-	-	-	3	2	-
Colorado.....	-	-	-	-	-	-	-	1	7	1	3
New Mexico.....	-	-	-	-	-	-	1	-	6	8	-
Arizona.....	-	-	-	-	-	-	-	-	*20	6	-
Utah.....	-	-	-	-	-	-	-	-	8	6	-
Nevada.....	-	-	-	-	-	-	-	-	1	1	-
PACIFIC.....	4	16	1	-	3	2	3	47	247	164	4
Washington.....	-	2	-	-	-	-	-	2	25	12	-
Oregon.....	-	-	-	-	-	-	-	1	14	13	-
California.....	4	14	1	-	3	2	3	44	203	134	4
Alaska.....	-	-	-	-	-	-	-	-	-	-	-
Hawaii.....	-	-	-	-	-	-	-	-	*5	5	-
Puerto Rico.....	1	-	-	-	-	-	-	-	26	21	-

\*Delayed reports: Aseptic Meningitis: N.Y. Ups. 1 case 1967  
 Brucellosis: Tex. 1 case 1967  
 Hepatitis, infectious: N.Y. Ups. 1, N.J. delete 1 case, Okla. 5, Ariz. 10, Hawaii 4

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
MARCH 16, 1968 AND MARCH 18, 1967 (11th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA	
	1968	Cumulative		1968	Cumulative			1968	Total	Paralytic		
		1968	1967		1968	1967			1968	1968		Cum. 1968
UNITED STATES...	688	6,245	24,507	85	920	662	5,666	2	2	11	2,376	
NEW ENGLAND.....	54	306	262	2	43	24	677	-	-	-	327	
Maine.....	*1	10	48	-	2	1	*48	-	-	-	*35	
New Hampshire.....	5	46	63	-	2	1	17	-	-	-	-	
Vermont.....	-	5	20	-	1	-	26	-	-	-	-	
Massachusetts.....	30	156	83	-	22	12	369	-	-	-	162	
Rhode Island.....	1	3	21	-	4	-	*122	-	-	-	-	
Connecticut.....	17	86	27	2	12	10	95	-	-	-	130	
MIDDLE ATLANTIC.....	130	812	773	27	159	83	238	-	-	-	168	
New York City.....	27	149	119	12	61	15	77	-	-	-	84	
New York, Up-State.....	67	447	169	4	14	25	NN	-	-	-	33	
New Jersey.....	*31	160	215	10	45	32	161	-	-	-	48	
Pennsylvania.....	5	56	270	1	39	11	NN	-	-	-	3	
EAST NORTH CENTRAL...	149	1,635	1,982	11	89	61	1,698	-	-	-	1,157	
Ohio.....	3	112	298	1	20	25	162	-	-	-	53	
Indiana.....	21	250	226	2	12	5	175	-	-	-	10	
Illinois.....	65	724	314	4	20	13	264	-	-	-	997	
Michigan.....	4	100	441	4	28	13	547	-	-	-	35	
Wisconsin.....	56	449	703	-	9	5	550	-	-	-	62	
WEST NORTH CENTRAL...	13	130	1,082	1	39	32	930	-	-	-	102	
Minnesota.....	1	3	46	-	6	5	45	-	-	-	1	
Iowa.....	-	38	216	-	3	6	694	-	-	-	91	
Missouri.....	3	9	29	1	7	9	39	-	-	-	-	
North Dakota.....	4	51	452	-	2	-	65	-	-	-	6	
South Dakota.....	-	3	38	-	4	4	NN	-	-	-	-	
Nebraska.....	5	19	301	-	4	7	18	-	-	-	2	
Kansas.....	-	7	NN	-	13	1	69	-	-	-	2	
SOUTH ATLANTIC.....	39	472	2,437	12	194	135	262	-	-	-	113	
Delaware.....	2	4	20	1	1	5	44	-	-	-	-	
Maryland.....	3	35	49	1	12	18	23	-	-	-	41	
Dist. of Columbia..	-	4	8	2	7	-	5	-	-	-	-	
Virginia.....	8	95	678	-	14	11	30	-	-	-	26	
West Virginia.....	12	123	482	1	4	12	97	-	-	-	15	
North Carolina.....	5	50	554	1	42	28	NN	-	-	-	-	
South Carolina.....	-	16	60	1	39	9	16	-	-	-	15	
Georgia.....	-	3	9	2	34	28	-	-	-	-	-	
Florida.....	9	142	577	3	41	24	47	-	-	-	16	
EAST SOUTH CENTRAL...	15	115	2,858	9	71	65	285	-	-	-	42	
Kentucky.....	3	40	937	3	27	18	*103	-	-	-	11	
Tennessee.....	-	16	864	5	20	28	158	-	-	-	17	
Alabama.....	8	30	601	-	12	12	22	-	-	-	14	
Mississippi.....	4	29	456	1	12	7	2	-	-	-	-	
WEST SOUTH CENTRAL...	162	1,510	9,089	7	192	117	380	1	1	5	116	
Arkansas.....	-	-	1,184	-	10	10	-	-	-	-	-	
Louisiana.....	-	1	50	2	46	46	1	-	-	-	2	
Oklahoma.....	4	47	2,740	*1	39	7	6	-	-	-	-	
Texas.....	158	1,462	5,115	4	97	54	373	1	1	5	114	
MOUNTAIN.....	39	326	1,489	2	12	16	340	-	-	-	60	
Montana.....	-	62	174	-	1	-	11	-	-	-	-	
Idaho.....	-	10	159	-	2	1	9	-	-	-	4	
Wyoming.....	1	31	12	-	-	-	28	-	-	-	-	
Colorado.....	13	110	371	2	6	7	144	-	-	-	22	
New Mexico.....	4	36	205	-	-	3	23	-	-	-	3	
Arizona.....	*20	73	319	-	1	2	*119	-	-	-	*31	
Utah.....	1	2	85	-	-	1	6	-	-	-	-	
Nevada.....	-	2	164	-	2	2	-	-	-	-	-	
PACIFIC.....	87	939	4,535	14	121	129	856	1	1	6	291	
Washington.....	21	275	2,292	3	19	10	193	-	-	-	87	
Oregon.....	13	220	522	1	11	10	17	-	-	-	25	
California.....	51	421	1,606	9	82	107	584	**1	**1	6	165	
Alaska.....	-	-	64	-	-	2	6	-	-	-	8	
Hawaii.....	2	23	51	1	9	-	56	-	-	-	6	
Puerto Rico.....	12	104	713	1	13	7	8	-	-	-	-	

\*Delayed reports: Measles: Me. 1, N.J. 1, Ariz. 14  
Meningococcal infections: Okla. 1  
Mumps: Me. 9, R.I. 74, Ky. 49, Ariz. 68  
Rubella: Me. 9, Ariz. 14  
\*\*Poliomyelitis, paralytic: Calif. 1 case out of state

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
MARCH 16, 1968 AND MARCH 18, 1967 (11th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
		1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968
UNITED STATES...	12,010	2	22	1	16	4	42	-	3	54	768
NEW ENGLAND.....	1,933	-	-	-	-	-	2	-	-	5	22
Maine.....	*47	-	-	-	-	-	-	-	-	5	22
New Hampshire.....	3	-	-	-	-	-	-	-	-	-	-
Vermont.....	41	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	291	-	-	-	-	-	1	-	-	-	-
Rhode Island.....	168	-	-	-	-	-	-	-	-	-	-
Connecticut.....	1,383	-	-	-	-	-	1	-	-	-	-
MIDDLE ATLANTIC.....	465	-	5	-	-	-	6	-	-	1	8
New York City.....	33	-	3	-	-	-	4	-	-	-	-
New York, Up-State.....	367	-	2	-	-	-	1	-	-	-	4
New Jersey.....	NN	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	65	-	-	-	-	-	1	-	-	1	4
EAST NORTH CENTRAL...	1,405	-	2	-	3	2	7	-	-	3	42
Ohio.....	393	-	-	-	1	1	5	-	-	-	20
Indiana.....	225	-	-	-	-	-	-	-	-	1	8
Illinois.....	200	-	1	-	1	-	1	-	-	2	6
Michigan.....	306	-	1	-	1	-	-	-	-	-	3
Wisconsin.....	281	-	-	-	-	1	1	-	-	-	5
WEST NORTH CENTRAL...	722	-	1	-	4	-	2	-	-	7	146
Minnesota.....	63	-	-	-	-	-	-	-	-	2	38
Iowa.....	178	-	-	-	-	-	-	-	-	1	34
Missouri.....	41	-	1	-	2	-	2	-	-	1	31
North Dakota.....	131	-	-	-	-	-	-	-	-	2	30
South Dakota.....	58	-	-	-	1	-	-	-	-	-	-
Nebraska.....	33	-	-	-	-	-	-	-	-	1	6
Kansas.....	218	-	-	-	1	-	-	-	-	-	7
SOUTH ATLANTIC.....	1,309	-	2	1	4	1	11	-	2	11	261
Delaware.....	4	-	-	-	-	-	-	-	-	-	-
Maryland.....	*220	-	-	-	-	-	3	-	-	-	2
Dist. of Columbia..	2	-	-	-	-	-	-	-	-	-	-
Virginia.....	542	-	1	1	1	1	2	-	2	3	50
West Virginia.....	213	-	-	-	-	-	-	-	-	1	10
North Carolina.....	19	-	1	-	2	-	2	-	-	-	2
South Carolina.....	97	-	-	-	-	-	-	-	-	-	-
Georgia.....	13	-	-	-	1	-	1	-	-	1	6
Florida.....	199	-	-	-	-	-	3	-	-	-	21
EAST SOUTH CENTRAL...	1,451	-	2	-	3	-	7	-	1	11	261
Kentucky.....	86	-	-	-	1	-	1	-	-	7	117
Tennessee.....	1,082	-	-	-	2	-	5	-	-	4	134
Alabama.....	198	-	1	-	-	-	-	-	-	-	10
Mississippi.....	85	-	1	-	-	-	1	-	1	-	-
WEST SOUTH CENTRAL...	662	2	5	-	-	-	2	-	-	16	145
Arkansas.....	24	-	-	-	-	-	-	-	-	4	15
Louisiana.....	5	2	4	-	-	-	1	-	-	-	18
Oklahoma.....	*108	-	-	-	-	-	1	-	-	*8	44
Texas.....	525	-	1	-	-	-	-	*-	-	4	68
MOUNTAIN.....	2,504	-	-	-	2	1	1	-	-	-	10
Montana.....	71	-	-	-	-	-	-	-	-	-	-
Idaho.....	94	-	-	-	-	-	-	-	-	-	-
Wyoming.....	*272	-	-	-	-	-	-	-	-	-	1
Colorado.....	1,518	-	-	-	1	1	1	-	-	-	-
New Mexico.....	241	-	-	-	-	-	-	-	-	-	4
Arizona.....	*201	-	-	-	-	-	-	-	-	-	5
Utah.....	107	-	-	-	1	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	1,559	-	5	-	-	-	4	-	-	6	43
Washington.....	401	-	-	-	-	-	-	-	-	-	-
Oregon.....	183	-	-	-	-	-	-	-	-	-	-
California.....	859	-	5	-	-	-	4	-	-	6	43
Alaska.....	23	-	-	-	-	-	-	-	-	-	-
Hawaii.....	93	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	11	-	-	-	-	-	-	-	-	2	8

\*Delayed reports: SST: Me. 24, Md. 22 cases 1967, Okla. 44, Wyo. 165, Ariz. 79  
Rky. Mt. Spotted Fev.: Tex. 1 case 1967  
Rabies in Animals: Okla. 4

Week No.

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED MARCH 16, 1968

11

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
NEW ENGLAND:	782	484	54	26	SOUTH ATLANTIC:	1,248	683	48	66
Boston, Mass.-----	241	138	18	7	Atlanta, Ga.-----	133	68	4	8
Bridgeport, Conn.-----	56	29	7	3	Baltimore, Md.-----	250	133	7	16
Cambridge, Mass.-----	36	25	-	1	Charlotte, N. C.-----	47	19	-	1
Fall River, Mass.-----	34	22	-	-	Jacksonville, Fla.-----	75	36	3	3
Hartford, Conn.-----	65	37	2	4	Miami, Fla.-----	135	87	1	4
Lowell, Mass.-----	39	25	6	1	Norfolk, Va.-----	59	24	6	7
Lynn, Mass.-----	22	16	1	-	Richmond, Va.-----	84	55	-	1
New Bedford, Mass.-----	27	20	1	-	Savannah, Ga.-----	41	20	2	4
New Haven, Conn.-----	50	32	1	2	St. Petersburg, Fla.-----	99	79	4	3
Providence, R. I.-----	66	43	7	3	Tampa, Fla.-----	85	55	5	4
Somerville, Mass.-----	12	10	2	-	Washington, D. C.-----	212	94	15	15
Springfield, Mass.-----	54	32	5	4	Wilmington, Del.-----	28	13	1	-
Waterbury, Conn.-----	25	15	-	-					
Worcester, Mass.-----	55	40	4	1	EAST SOUTH CENTRAL:	578	332	19	26
MIDDLE ATLANTIC:	3,485	2,102	157	117	Birmingham, Ala.-----	111	64	1	2
Albany, N. Y.-----	38	23	2	3	Chattanooga, Tenn.-----	45	23	3	2
Allentown, Pa.-----	32	20	1	2	Knoxville, Tenn.-----	34	21	1	2
Buffalo, N. Y.-----	150	87	1	3	Louisville, Ky.-----	88	61	5	3
Camden, N. J.-----	39	20	3	3	Memphis, Tenn.-----	130	72	1	6
Elizabeth, N. J.-----	39	24	3	1	Mobile, Ala.-----	47	26	-	3
Erie, Pa.-----	41	27	3	1	Montgomery, Ala.-----	31	17	6	2
Jersey City, N. J.-----	78	44	8	3	Nashville, Tenn.-----	92	48	2	6
Newark, N. J.-----	65	33	8	3	WEST SOUTH CENTRAL:	1,307	673	61	74
New York City, N. Y.-----	1,868	1,117	68	59	Austin, Tex.-----	53	34	3	3
Paterson, N. J.-----	26	18	3	-	Baton Rouge, La.-----	36	19	1	1
Philadelphia, Pa.-----	516	303	17	19	Corpus Christi, Tex.-----	38	18	-	2
Pittsburgh, Pa.-----	186	110	10	7	Dallas, Tex.-----	165	85	7	11
Reading, Pa.-----	53	38	4	-	El Paso, Tex.-----	44	18	5	7
Rochester, N. Y.-----	104	66	9	4	Fort Worth, Tex.-----	87	51	5	4
Schenectady, N. Y.-----	32	27	-	-	Houston, Tex.-----	248	112	10	15
Scranton, Pa.-----	39	29	3	-	Little Rock, Ark.-----	66	46	5	2
Syracuse, N. Y.-----	61	36	1	4	New Orleans, La.-----	206	95	6	7
Trenton, N. J.-----	48	30	2	3	Oklahoma City, Okla.-----	99	53	4	6
Utica, N. Y.-----	31	21	5	2	San Antonio, Tex.-----	130	63	4	10
Yonkers, N. Y.-----	39	29	6	-	Shreveport, La.-----	62	39	4	3
EAST NORTH CENTRAL:	2,632	1,494	103	155	Tulsa, Okla.-----	73	40	7	3
Akron, Ohio.-----	50	27	-	4	MOUNTAIN:	486	272	19	18
Canton, Ohio.-----	39	17	6	3	Albuquerque, N. Mex.-----	37	20	-	3
Chicago, Ill.-----	755	400	33	43	Colorado Springs, Colo.-----	23	9	-	5
Cincinnati, Ohio.-----	175	125	8	7	Denver, Colo.-----	138	76	8	3
Cleveland, Ohio.-----	233	121	3	19	Ogden, Utah.-----	22	13	2	1
Columbus, Ohio.-----	117	65	-	8	Phoenix, Ariz.-----	113	57	1	1
Dayton, Ohio.-----	74	49	4	4	Pueblo, Colo.-----	22	14	2	-
Detroit, Mich.-----	399	231	3	20	Salt Lake City, Utah.-----	60	38	3	5
Evansville, Ind.-----	45	26	8	4	Tucson, Ariz.-----	71	45	3	-
Flint, Mich.-----	54	30	3	3	PACIFIC:	1,565	937	43	74
Fort Wayne, Ind.-----	38	21	5	3	Berkeley, Calif.-----	17	12	-	-
Gary, Ind.-----	38	15	5	9	Fresno, Calif.-----	51	27	1	1
Grand Rapids, Mich.-----	51	22	5	2	Glendale, Calif.-----	42	27	1	-
Indianapolis, Ind.-----	143	90	2	5	Honolulu, Hawaii.-----	46	25	2	3
Madison, Wis.-----	30	13	2	4	Long Beach, Calif.-----	78	49	2	4
Milwaukee, Wis.-----	134	80	1	3	Los Angeles, Calif.-----	535	332	17	24
Peoria, Ill.-----	38	17	3	5	Oakland, Calif.-----	89	56	1	5
Rockford, Ill.-----	17	9	4	2	Pasadena, Calif.-----	39	29	2	-
South Bend, Ind.-----	44	24	2	3	Portland, Oreg.-----	90	56	2	4
Toledo, Ohio.-----	97	66	4	2	Sacramento, Calif.-----	51	34	1	-
Youngstown, Ohio.-----	61	46	2	2	San Diego, Calif.-----	101	53	3	8
WEST NORTH CENTRAL:	846	540	33	46	San Francisco, Calif.-----	176	89	4	14
Des Moines, Iowa.-----	60	44	1	3	San Jose, Calif.-----	38	23	2	2
Duluth, Minn.-----	32	20	1	-	Seattle, Wash.-----	135	79	3	8
Kansas City, Kans.-----	37	19	4	5	Spokane, Wash.-----	43	26	1	-
Kansas City, Mo.-----	133	84	2	11	Tacoma, Wash.-----	34	20	1	1
Lincoln, Nebr.-----	41	30	1	2	Total	12,929	7,517	537	602
Minneapolis, Minn.-----	99	61	1	2	Cumulative Totals				
Omaha, Nebr.-----	80	49	1	4	including reported corrections for previous weeks				
St. Louis, Mo.-----	249	154	12	13	All Causes, All Ages-----	154,777			
St. Paul, Minn.-----	72	49	4	3	All Causes, Age 65 and over-----	92,419			
Wichita, Kans.-----	43	30	6	3	Pneumonia and Influenza, All Ages-----	8,474			
					All Causes, Under 1 Year of Age-----	6,714			

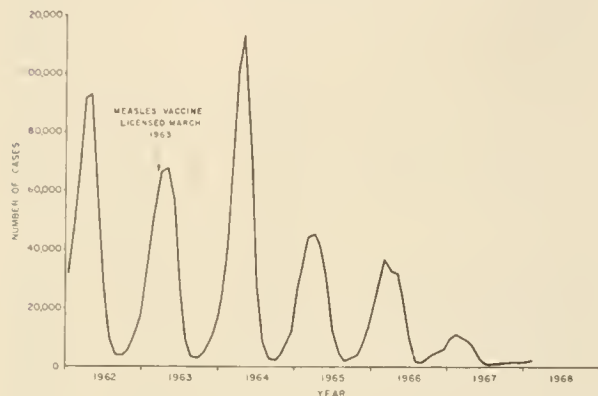
\*Estimate - based on average percent of divisional total.



## MEASLES — (Continued from page 95)

The alternating pattern of "high" and "low" years of reported measles cases has changed in recent years (Figure 1). In general, the nine geographic divisions of the United States reflect a similar change since the widespread use of measles vaccine beginning in 1961.

Figure 1  
REPORTED CASES OF MEASLES BY 4-WEEK PERIODS  
UNITED STATES, 1962-1968



(Reported by State Services Section and Statistics Section, CDC.)

### INTERNATIONAL NOTES QUARANTINE MEASURES

*Additional Immunization Information for International Travel, 1967-68 edition, Public Health Service Publication No. 384*

The following information should be included in Section 5:

#### AMERICA

##### Brazil — Page 42

Insert: Vaccination against poliomyelitis is required\* from children 3 months to 6 years of age (a) when a visa is needed for entry into Brazil, (b) when the child is a national of Brazil. The dosage of vaccine must be clearly indicated on the Certificate.

##### Cayman Islands — Page 43

Insert Cayman Islands and add the following information: Smallpox vaccination is required from all arrivals, except arrivals from Jamaica and the United States of America.

##### El Salvador — Page 45

Add under yellow fever: Yellow fever vaccination is required for all arrivals age 6 months and over when arriving from infected local areas.

##### Trinidad and Tobago — Page 49

Delete all information concerning smallpox. Insert: Smallpox vaccination required from all arrivals.

\*Conformity of this measure with the Regulations may be open to question; the World Health Organization is in communication with the health administration concerned.

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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE NATIONAL COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

NATIONAL COMMUNICABLE DISEASE CENTER  
ATLANTA, GEORGIA 30333  
ATTN: THE EDITOR  
MORBIDITY AND MORTALITY WEEKLY REPORT

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

U.S. DEPARTMENT OF  
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